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10/671,951	09/26/2003	Denny Jaeger	4333	7296

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EXAMINER

VUU, HENRY

ART UNIT	PAPER NUMBER
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2179

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/671,951

Applicant(s)

JAEGER, DENNY

Examiner

Henry Vuu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 – 16, and 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonelli et al. (Patent No. 6,229,540) in view of Melder et al. (Patent No. 6,748,902).

With regard to claim 11, Tonelli et al. teaches a storage medium readable by a computer (see e.g., Fig. 1 and col. 5, lines 9 – 22; i.e., memory 18, such as CD ROM or a 3.5-inch floppy disk), tangibly embodying a program of instructions (see e.g., Fig. 1 and col. 5, lines 9 – 22; i.e., design software 10 and rule engine software 12) executable by said computer (see e.g., Fig. 1 and col. 5, lines 9 – 22; i.e., computer 20, wherein the software is loaded into memory 18) to perform method steps for illustrating assigned relationships (see e.g., Fig. 31 and col. 4, lines 45 – 62; i.e., connecting an Ethernet coax cable to a 10BaseT port through connectors) between graphic objects (see e.g., Fig. 31 and col. 4, lines 45 – 62; i.e., network device icons and network media icons) that represent functional devices (see e.g., Fig. 31 and col. 6, lines 53 – 58; i.e., network device icons and network media icons both represent functional devices used to carry out network connecting capabilities, such as personal computers, routers, hubs, switches, transceivers, adapter cards, and other device categories) capable of operating

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on said computer (see e.g., Fig. 31 and col. 6, lines 53 – 58; i.e., icons representing personal computers, routers, hubs, switches, transceivers, and adapter cards are functional devices operable on a computer for network connectivity) to produce a desired output (see e.g., Fig. 31 and col. 4, lines 51 – 58; i.e., validation of network connectivity by using rules engine in order to obtain a desired and valid connection), said method steps comprising: displaying first and second graphic objects (see e.g., Fig. 31 and col. 7, lines 35 – 40; i.e., the user drag-and-drops devices from a list of devices onto the design sheet, wherein separate collections 320 and 322 depicted in Fig. 31 represent a first and second object respectively), said first graphic object having an assigned relationship (see e.g., Fig. 31 and col. 13, lines 53 – 59; i.e., the first icon is assigned a connection relationship to a second icon, wherein the connection is an Ethernet connection) with said second graphic object (see e.g., Fig. 31 and col. 8, lines 57 – 65; i.e., the user connects two device icons together by using the Connect Mode toolbar toggle button 130 or Connect option 132); and displaying a graphic indicator between said first and second graphic objects (see e.g., Fig. 31 and col. 10, lines 37 – 42; i.e., connection 188, wherein depicted in Fig. 31 is a connection between collections 320 and collection 322) in response to a user input requesting said assigned relationship between said first and second graphic objects be shown (see e.g., col. 10, lines 37 – 42; i.e., Port message box is a result of the user initiating a connection between two icons). Tonelli et al. does not specifically mention a directional indicator between said first and second graphic objects. Melder et al. teaches a directional indicator between said first and second graphic objects (see e.g., col. 6, lines 43 – 53;

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i.e., arrow symbols corresponds to the signal flow, wherein the directional indicator pertains to a signal input or output). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with the directional indicator between the first and second graphic objects of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 12, this claim is analyzed with respect to claim 11 as previously discussed above. Tonelli et al. teaches a graphic indicator between a first and second graphic object (see e.g., Fig. 31; i.e., graphic connector connecting icon 320 to icon 322), but does not specifically mention the graphic directional indicator includes an arrow. Melder et al. teaches the graphic directional indicator includes an arrow (see e.g., col. 6, lines 43 – 53; i.e., arrow symbols corresponds to the signal flow, wherein the directional indicator pertains to a signal input or output). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with the graphic directional indicator including an arrow of Melder et al. because the arrow symbol allows the user to visualize the

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direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 13, this claim is analyzed with respect to claim 12 as previously discussed above. Tonelli et al. teaches a assigning relationships between a first and second graphic object (see e.g., Fig. 31 and col. 8, lines 57 – 65; i.e., the user connects two device icons together by using the Connect Mode toolbar toggle button 130 or Connect option 132), wherein the assigned relationship includes a graphic indicator (see e.g., Fig. 31; i.e., graphic connector connecting icon 320 to icon 322) of a particular color (see e.g., col. 17, lines 54 – 56; i.e., a media line can be viewed or modified in a particular color or pattern), but does not specifically mention a directional indicator includes an arrow of a particular color to indicate a type of relationship assigned between the first and second graphic object. Melder et al. teaches a directional indicator includes an arrow of a particular color to indicate a type of relationship assigned between the first and second graphic object (see e.g., Fig. 1 and col. 11, lines 36 – 40; i.e., the color design of the connection symbol 16 and 17 are displayed in different color designs to illustrate different properties of each functional element). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with a directional indicator includes an arrow of a particular color to indicate a type of relationship

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assigned between the first and second graphic object of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 14, this claim is analyzed with respect to claim 11 as previously discussed above. Tonelli et al. does not specifically mention the graphic directional indicator includes displaying said graphic directional indicator to point from said first graphic object to said second graphic object to indicate said assigned relationship is from said first graphic object to said second graphic object. Melder et al. teaches the graphic directional indicator includes displaying said graphic directional indicator to point from said first graphic object to said second graphic object (see e.g., Fig. 1 and col. 10, lines 13 – 28; i.e., object symbol 1 points to object symbol 2 by data connection symbol 8 and data connection symbol 9) to indicate said assigned relationship is from said first graphic object to said second graphic object (see e.g., Fig. 1; i.e., the direction of data connection symbol 8 represents a signal output to data connection symbol 9, wherein data connection symbol 9 represents a signal input from object symbol 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with the graphic directional indicator includes displaying said graphic directional indicator to point

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from said first graphic object to said second graphic object to indicate said assigned relationship is from said first graphic object to said second graphic object of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 15, this claim is analyzed with respect to claim 11 as previously discussed above. Tonelli et al. teaches displaying a third graphic object (see e.g., Fig. 31; i.e., collection icon 324), said third graphic object having assigned relationship with the second graphic object (see e.g., Fig. 31 and col. 13, lines 53 – 59; i.e., the second collection icon 322 is assigned a connection relationship to a third collection icon 324, wherein the connection could be an Ethernet connection), displaying a second graphic indicator between said second and third graphic objects (see e.g., Fig. 31; i.e., collection icon 322 has media connection to collection icon 324) in response to a user input request (see e.g., Fig. 13a – 13b, Fig. 31 and col. 9, lines 40 – 56; i.e., the user can invoke media palette 121 to choose a plurality of media connection types) said second assigned relationship between said second and third graphic objects be shown (see e.g., Fig. 31; i.e., the media connection between collection icon 322 and collection icon 324 is displayed on the user interface), but does not specifically mention displaying a second graphic directional indicator between said second and third graphic objects. Melder et al. teaches displaying a second graphic directional indicator (see e.g., col. 6, lines 43 – 53; i.e., arrow symbols corresponds to

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the signal flow, wherein the directional indicator pertains to a signal input or output) between said second and third graphic objects (see e.g., Fig. 1; i.e., the second directional indicator corresponds to connection symbol 8 of object symbol 2 connected to connection symbol 9 of object symbol 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate displaying a third graphic object, said third graphic object having assigned relationship with the second graphic object, displaying a second graphic indicator between said second and third graphic objects in response to a user input request, said second assigned relationship between said second and third graphic objects be shown of Tonelli et al. with the displaying a second graphic directional indicator between said second and third graphic objects of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 16, this claim is analyzed with respect to claim 15 as previously discussed above. Tonelli et al. does not specifically mention the second graphic directional indicator includes displaying said second graphic directional indicator to point from said second graphic object to said third graphic object to indicate said assigned relationship is from said second graphic object to said third graphic object. Melder et al. teaches the second graphic directional indicator includes displaying said second graphic directional indicator to point from said second graphic object to said

third graphic object (see e.g., Fig. 1 and col. 10, lines 13 – 28; i.e., object symbol 2 points to object symbol 4 by data connection symbol 8 and data connection symbol 9) to indicate said assigned relationship is from said first graphic object to said second graphic object (see e.g., Fig. 1; i.e., the direction of data connection symbol 8 represents a signal output to data connection symbol 9 of symbol object 2 and object symbol 4, wherein data connection symbol 9 represents a signal input from object symbol 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with the second graphic directional indicator includes displaying said second graphic directional indicator to point from said second graphic object to said third graphic object to indicate said assigned relationship is from said second graphic object to said third graphic object of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 18, this claim is analyzed with respect to claim 15 as previously discussed above. Tonelli et al teaches displaying a first graphic indicator connecting a first graphic object to a second graphic object (see e.g., Fig. 13a, Fig. 31; i.e., collection symbol 320 and collection symbol 322 are connected through a connection media line, wherein the media type can be selected from media palette 121)

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in response to a user command for second graphic object (see e.g., col. 7, lines 35 – 51; i.e., a plurality of network device from device palettes may be dragged onto network design sheet), and a second graphic indicator includes displaying a second graphic indicator connecting a second graphic object to a third graphic object (see e.g., Fig. 13a, Fig. 31; i.e., collection symbol 322 and collection symbol 324 are connected through a connection media line, wherein the media type can be selected from media palette 121) in response to a user command for the second graphic object (see e.g., col. 7, lines 35 – 51; i.e., a plurality of network device from device palettes may be dragged onto network design sheet). Tonelle et al. does not specifically mention the graphic indicator is a graphic directional indicator pointing from a first graphic object to a second graphic object, and a graphic directional indicator pointing from a second graphic object to a third graphic object. Melder et al teaches a graphic directional indicator (see e.g., Fig. 1 and col. 10, lines 13 – 29; i.e., data connection symbol 8 and data connection symbol 9 corresponds to a graphic directional indicator) pointing from a first graphic object to a second graphic object (see e.g., Fig. 1 and col. 10, lines 13 – 28; i.e., object symbol 1 points to object symbol 2 by data connection symbol 8 and data connection symbol 9), and a second graphic object pointing a third graphic object (see e.g., Fig. 1 and col. 10, lines 13 – 28; i.e., object symbol 2 points to object symbol 4 by data connection symbol 8 and data connection symbol 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaches displaying a first graphic indicator connecting a first graphic object to a second graphic object in response to a user command for second graphic

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object, and a second graphic indicator includes displaying a second graphic indicator connecting a second graphic object to a third graphic object in response to a user command for the second graphic object of Tonelli et al. with the graphic indicator is a graphic directional indicator pointing from a first graphic object to a second graphic object, and a graphic directional indicator pointing from a second graphic object to a third graphic object because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 19, this claim is analyzed with respect to claim 11 as previously discussed above. Tonelle et al. teaches displaying a first graphic indicator (see e.g., Fig. 31; i.e., connection media line connecting collection symbol 320 and collection symbol 322) includes displaying said first graphic indicator between said first and second graphic objects (see e.g., Fig. 31 and col. 8, lines 40 – 65; i.e., connection media line is between collection symbol 320 and collection symbol 322) in response to a user command for one of said first and second graphic objects (see e.g., col. 8, lines 40 – 65; i.e., the connection is made by choosing a connection type from media palette 121 and moving the crosshair cursor to the desired collection symbol). Tonelli et al. does not specifically mention a directional indicator between said first and second graphic objects. Melder et al. teaches a directional indicator between said first and second graphic objects (see e.g., col. 6, lines 43 – 53; i.e., arrow symbols corresponds to the signal flow, wherein the directional indicator pertains to a signal input or output).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the storage medium readable by a computer executable by a computer, tangibly embodying a program of instructions to perform the method steps for illustrating assigned relationships of Tonelli et al. with the directional indicator between the first and second graphic objects of Melder et al. because the arrow symbol allows the user to visualize the direction of the signal flow between object symbols (see e.g., col. 6, lines 43 – 53; i.e., the user is able to visualize the direction of signal input or output of a corresponding object, therefore creating an easier visualization of graphic object relationships).

With regard to claim 20, this claim is analyzed with respect to claim 11 as previously discussed above. Tonelli et al. teaches the assigned relationship (see e.g., Fig. 31 and col. 13, lines 53 – 59; i.e., the first icon is assigned a connection relationship to a second icon, wherein the connection is an Ethernet connection) between said first and second object (see e.g., Fig. 31 and col. 7, lines 35 – 40; i.e., the user drag-and-drops devices from a list of devices onto the design sheet, wherein separate collections 320 and 322 depicted in Fig. 31 represent a first and second object respectively) is a functional relationship between said first and second objects (see e.g., col. 9, lines 25 – 39; i.e., the functional relationship corresponds to the media connection of collection symbol 320 and collection symbol 322, wherein the color of the connection determines the functional network connectivity of collection symbol 320 and collection symbol 322).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tonelli et al. (Patent No. 6,229,540) in view of Melder et al. (Patent No. 6,748,902) and further in view of Wall et al. (Publication No. 2002/0091736).

With regard to claim 17, this claim is analyzed with respect to claim 15 as previously discussed above. Both Tonelli et al and Melder et al. do not specifically mention a graphical directional indicator pointing from the third object to the second object. Wall et al. teaches a graphical directional indicator (see e.g., Fig. 49; bidirectional arrow pointing from "coke" icon to "doro wat" icon) pointing from the third object to the second object (see e.g., Fig. 49 and para. [0331]; i.e., the bidirectional arrow is used to visualize a relationship between two objects in a graphical environment). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate displaying a third graphic object, said third graphic object having assigned relationship with the second graphic object, displaying a second graphic indicator between said second and third graphic objects in response to a user input request, said second assigned relationship between said second and third graphic objects be shown of Tonelli et al. as modified by the displaying a second graphic directional indicator between said second and third graphic objects of Melder et al. with the graphical directional indicator pointing from the third object to the second object of Wall et al. because the bidirectional arrow resembles a relationship connection between graphical objects and will further reduce the visual complexity of a complex graphical environment (see e.g., para. [0031], lines 9 – 12).

Response to Arguments

Applicant's arguments with respect to claims 11 - 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art Patent No. 7,002,702 can be applicable and pertinent to applicant's disclosure. Prior art disclosed by Machida et al. teaches a plurality of peripheral devices that are functional on a computer system, wherein icons of peripheral devices are dragged and dropped onto the GUI for validation of the combined icons.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art Patent No. 5,751,965 can be applicable and pertinent to

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applicant's disclosure. Prior art disclosed by Mayo et al. teaches network devices that are connected through connectors, wherein the connectors display a relationship between two or more icons.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Vuu whose telephone number is (571) 270-1048. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Henry Vuu



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SUPERVISORY PATENT EXAMINER